NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date:

Region: Winston-Salem Regional Office
County: Davidson
NC Facility ID: 2900116
Inspector's Name: Dylan Wright
Date of Last Inspection: 02/07/2019
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Transcontinental TVL LLC

Facility Address:
Transcontinental TVL LLC
1308 Blair Street
Thomasville, NC 27360

SIC: 2673 / Bags: Plastics, Laminated and Coated
NAICS: 326111 / Plastics Bag Manufacturing

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: 02D 0515, .0516, .0521,.1111, .1806,
NSPS: NA
NESHAP: KK
PSD: NA
PSD Avoidance: 02Q .0317
NC Toxics: NA
112(r): NA
Other: NA

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Johnny Welch Environmental Manager (336) 474-4406 1308 Blair Street Thomasville, NC 27360 Johnny.Welch@tc.tc	Julie Jung Interim Plant Manager (336) 474-4404 1308 Blair Street Thomasville, NC 27360 Julie.Jung@tc.tc	Johnny Welch Environmental Manager (336) 474-4406 1308 Blair Street Thomasville, NC 27360 Johnny.Welch@tc.tc

Application Data

Application Number: 2900116.19B
Date Received: 06/03/2019
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 04444/T20
Existing Permit Issue Date: 02/21/2019
Existing Permit Expiration Date: 02/29/2020

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2017	---	0.2900	52.95	0.2400	---	0.6030	0.4710 [Glycol Ethers, Unlisted - Spec]
2016	---	0.3000	47.43	0.2500	0.0200	0.1714	0.1130 [Glycol Ethers, Unlisted - Spec]
2015	---	0.3100	53.59	0.2600	0.0200	0.1855	0.1680 [Glycol Ethers, Unlisted - Spec]
2014	---	0.3100	84.61	0.2600	0.0200	0.3495	0.3230 [Glycol Ethers, Unlisted - Spec]
2013	---	0.3100	71.38	0.2600	0.0300	0.3400	0.2995 [Glycol Ethers, Unlisted - Spec]

Review Engineer: Eric Crump

Review Engineer's Signature: **Date:**

Comments / Recommendations:
Issue 04444/T21
Permit Issue Date:
Permit Expiration Date:

1. Purpose of Application

Transcontinental TVL LLC is a plastic film and bag manufacturing facility located in Thomasville, Davidson County, North Carolina. The facility operates under Title V Permit No. 04444T20 with an expiration date of February 29, 2020. Transcontinental has applied for renewal of their facility's air quality permit. The renewal application was received on June 3, 2019, which is at least six months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

Through permit application No. 2900116.19B, Transcontinental included the following changes to the existing permit:

- Addition of an anilox cleaner (Source ID No I-AC), corona treaters (Source ID No I-CT), and a burn-off oven (Source ID No I-B1) to the permit as insignificant activities.
- Removal of the wastewater evaporation system (Source ID No. I-WWES) from the permit.

In addition, the inspector from the Winston-Salem Regional Office recommended the following issues be addressed in this permit renewal:

- Removal of the plate clean-up machine (Source ID No. IPC-1) from the permit.
- Inclusion of a baghouse for the truck/railcar unloading operation that is not currently on the permit.
- Addition of nine natural gas-fired space heaters to the permit as insignificant activities.

2. Facility Description

The Transcontinental facility receives polyethylene pellets delivered by railcar or truck. The pellets are heated to 350 - 400°F with an electric heater and extruded into plastic sheet film. The facility prints images and data onto the sheet film to meet each customer's specifications. Some of the plastic film produced is sold as rollstock for customers to use in wrapping and packaging. The rest of the plastic film stock is cut, folded, and glued with adhesive to form plastic bags that are used as retail packaging for a variety of products. Hours of operation are normally 24 hours per day, 7 days per week, for 52 weeks per year. The facility does occasionally shut down for maintenance and for major holidays.

3. Application Chronology

March 2, 2015	Permit No. 04444/T18 issued to Coveris Flexibles US, LLC (Coveris) as a Title V renewal.
March 17, 2015	Compliance inspection of Coveris conducted by Robert Barker, Winston-Salem Regional Office (WSRO). Facility appeared to be operating in compliance with all permit requirements.
January 12, 2016	Compliance inspection of Coveris conducted by Robert Barker, WSRO. Facility appeared to be operating in compliance with all permit requirements.
August 8, 2016	Department of Air Quality (DAQ) issues Notice of Violation to Coveris for failing

	to complete monthly VOC work practice inspections for January and February of 2016 as required.
March 17, 2017	Compliance inspection of Coveris conducted by Robert Barker, WSRO. Facility appeared to be operating in compliance with all permit requirements.
May 22, 2018	Compliance inspection of Coveris conducted by Dylan Wright, WSRO. Facility appeared to be operating in compliance with all permit requirements.
July 24, 2018	DAQ receives Application No. 2900116.18A from Coveris for an ownership/name change from Coveris Flexibles US, LLC to Transcontinental TLV LLC (Transcontinental).
August 14, 2018	Permit No. 04444/T19 issued to Transcontinental TLV LLC.
February 1, 2019	DAQ receives Application No. 2900116.18A from Transcontinental TLV LLC for an ownership/name change to Transcontinental TVL LLC.
February 7, 2019	Compliance inspection of Transcontinental conducted by Dylan Wright, WSRO. Facility appeared to be operating in compliance with all permit requirements.
February 21, 2019	Permit No. 04444/T20 issued to Transcontinental.
June 3, 2019	DAQ receives Application No. 2900116.19B for renewal of Transcontinental permit.
August 1, 2019	Letter from Transcontinental to DAQ explaining why the baghouse on the plastic pellet offloading system should be considered part of the offloading system and not an air pollution control device.
October 24, 2019	DAQ sends draft permit and application review to Transcontinental and WRSO for review and comment.
November 4, 2018	Comments received from WRSO.

4. Permit Modifications and Title V Equipment Editor (TVEE) Discussion

The following table summarizes changes to the Transcontinental permit resulting from the permit renewal:

Page No.	Section	Description of Changes
Cover and throughout	---	Updated all dates and permit revision numbers
Insignificant Activities List	Attachment	Added the following activities: • Anilox cleaner (Source ID No I-AC) • Thirteen corona treaters (producing 97 KW total) (Source ID No I-CT) • Burn-off oven (0.39 MMBtu per hour) (Source ID No I-B1)

		• Natural gas-fired space heater, ADSL front (132,000 BTU per hour) (Source ID No. I-H1) • Natural gas-fired space heater, ADSL back (300,000 BTU per hour) (Source ID No. I-H2) • Natural gas-fired space heater, Machine 158 (300,000 BTU per hour) (Source ID No. I-H3) • Natural gas-fired space heater, Quality testing area (400,000 BTU per hour) (Source ID No. I-H4) • Natural gas-fired space heater, Machine 163 (225,000 BTU per hour) (Source ID No. I-H5) • Natural gas-fired space heater, Middle Warehouse (250,000 BTU per hour) (Source ID No. I-H6) • Natural gas-fired space heater, Far Warehouse (250,000 BTU per hour) (Source ID No. I-H7) • Natural gas-fired space heater, Far Warehouse near docks (250,000 BTU per hour) (Source ID No. I-H8) • Natural gas-fired space heater, Trash Docks (250,000 BTU per hour) (Source ID No. I-H9)
4-5	2.1 A.1	Updated section to reflect the most current stipulations for 15A NCAC 02D .0515
5-6	2.1 A.3.c, e	Updated section to reflect the most current stipulations for 15A NCAC 02D .0515
6	2.1 A.4.b	Changed "Section 2.1 A.5.a" to "Section 2.1 A.4.a"
7	2.1 A.5	Deleted "a."
	2.1 A.6.c 2.1 A.6.d	Replaced text with stipulation for recording calculations and total amount of VOC emissions, reflecting the most current stipulations for 15A NCAC 02Q .0317 (Avoidance of 15A NCAC 02D .0530) Moved reporting requirement originally in Section 2.1 A.6.c here
	3	Updated General Conditions to Version 5.3 dated August 21, 2018

The following changes were made to the Title V Equipment Editor (TVEE):

Additions:

- Anilox cleaner (Source ID No I-AC)
- Thirteen corona treaters (producing 97 KW total) (Source ID No I-CT)
- Burn-off oven (0.39 MMBtu per hour) (Source ID No I-B1)
- Natural gas-fired space heater, ADSL front (132,000 BTU per hour) (Source ID No. I-H1)
- Natural gas-fired space heater, ADSL back (300,000 BTU per hour) (Source ID No. I-H2)
- Natural gas-fired space heater, Machine 158 (300,000 BTU per hour) (Source ID No. I-H3)
- Natural gas-fired space heater, Quality testing area (400,000 BTU per hour) (Source ID No. I-H4)
- Natural gas-fired space heater, Machine 163 (225,000 BTU per hour) (Source ID No. I-H5)
- Natural gas-fired space heater, Middle Warehouse (250,000 BTU per hour) (Source ID No. I-H6)
- Natural gas-fired space heater, Far Warehouse (250,000 BTU per hour) (Source ID No. I-H7)
- Natural gas-fired space heater, Far Warehouse near docks (250,000 BTU per hour) (Source ID No. I-H8)
- Natural gas-fired space heater, Trash Docks (250,000 BTU per hour) (Source ID No. I-H9)

Deletions: Plate clean-up (Source ID No. IPC-1)

5. Description of Changes and Estimated Emissions

The following changes have been made to the permit:

A. Addition of an anilox cleaner (Source ID No I-AC), corona treaters (Source ID No I-CT), and a burn-off oven (Source ID No I-B1) to the permit as insignificant activities.

Transcontinental requested that these sources be included in the permit as insignificant activities exempted under 15A NCAC 02Q .0503(8), and provided the following information:

Anilox cleaner (I-AC): The anilox cleaner uses a liquid spray comprised of various cleaners and high pressure water spray to clean ink from the cells of the anilox rolls used in flexographic printing process, thereby preventing plugging. The rolls provide a measured amount of ink to the printing plate. The facility uses 480 pounds of cleaner per year, which contains 0.8 pounds per gallon (lb/gal) of volatile organic compounds per gallon. Assuming 100% of the VOC evaporates during the cleaning process, an overall spray density of 10 lb/gal:

$$\text{Annual VOC Emissions} = 480\ \frac{\text{lb}}{\text{yr}} * \frac{\text{gal}}{10\ \text{lb}} * 0.8\ \frac{\text{lb VOC}}{\text{gal}} * \frac{1\ \text{ton}}{2000\ \text{lb}} = 0.0192\ \text{tons of VOC emitted per year}$$

Corona treaters (I-CT): Transcontinental has 13 corona treaters distributed across seven units which generate a combined 97 kilowatts to increase the surface energy of the plastic sheet film to improve adhesion of the inks and adhesives. Ozone is produced as a result. Transcontinental provided estimates of potential ozone emissions in pounds per hour (lb/hr), calculated using the following formula:

$$\underset{\text{(lb/hr)}}{\text{Emissions}} = \underset{\text{(lb/kW-hr)}}{\text{Emission Factor}} * \underset{\text{(kW/Treater)}}{\text{Power Supply}} * \text{Number of Treaters}$$

Ozone emissions from the corona treaters are shown in the following table.

Unit ID	No. of Treaters	Power Supply (kW/Treater)	Ozone Emission Factor (lb/kW-hr)	Potential Emissions (lb/hr)	Potential Emissions (ton/yr)
I-ES0138	2	11	0.071	1.56	6.84
I-ES0139	2	11		1.56	6.84
I-ES0137	1	7		0.5	2.18
I-ES0160	3	6		1.28	5.60
I-ES0161	3	6		1.28	5.60
I-ES0115	1	5		0.36	1.55
I-ES0114	1	5		0.36	1.55
Total Ozone Emissions				**6.89**	**30.17**

Because atmospheric ozone is controlled by limiting emissions of its precursors (VOC and nitrogen oxides), there currently are no emission limits for ozone emitted directly to the atmosphere.

Burn-off oven (ID No. I-B1): A natural gas-fired burn-off oven (0.39 million Btu/hr maximum heat input) is used at the facility to clean parts used in the extruding and printing processes. Annual pollutant emissions from the oven were estimated using the DAQ Natural Gas Combustion Emissions Calculator (Rev. N, 01/05/2017).

Pollutant	Potential emissions (lb/hr)	Potential emissions (ton/yr)
PM_{10}	0.00	0.00
$PM_{2.5}$	0.00	0.00
SO_2	0.00	0.00
NO_X	0.07	0.28
VOC	0.00	0.01
CO	0.01	0.040
Largest HAP (n-Hexane)	6.88E-04	3.02E-03

From these emission estimates, it appears the anilox cleaner, the 13 corona treaters, and the burn-off oven can be classified as insignificant sources of emissions in accordance with 15 NCAC 02Q .0503(8), since the estimated emissions from each source does not exceed five tons per year for any criteria pollutant, or 1000 pounds per year for any hazardous air pollutant.

B. Removal of the plate clean-up machine (Source ID No. IPC-1) from the permit.

According to the most recent facility inspection report, this source has been removed from the facility. Transcontinental has confirmed this removal, and has requested that DAQ remove this source from the permit. As an insignificant source, this change will have no significant impact on overall emissions. Continued compliance is expected.

C. Addition of nine natural gas-fired space heaters to the permit as insignificant activities.

According to the most recent facility inspection report, the Transcontinental facility has "nine natural gas-fired space heaters ranging from 132,000 Btu/hr to 400,000 Btu/hr." Upon further inquiry, Transcontinental provided the following information on the heaters:

Heater	Location	Capacity, BTU/hr
I-H1	ADSL front	132,000
I-H2	ADSL back	300,000
I-H3	Machine 158	300,000
I-H4	Quality Testing Area	400,000
I-H5	Machine 163	225,000
I-H6	Middle Warehouse	250,000
I-H7	Far Warehouse	250,000
I-H8	Far Warehouse near docks	250,000
I-H9	Trash Docks	250,000

The residential furnace option for the DAQ Natural Gas Combustion Emissions Calculator (Rev. N, 01/05/2017) to estimate emissions for a space heater with a maximum heat input of 300,000 Btu/hr. This

would match Heater I-H3 in the table above, and overestimate emissions for every other space heater, with the exception of I-H4, which has a capacity of 400,000 Btu/hr. Estimated emissions for the heater are as follows:

Pollutant	Potential emissions (lb/hr)	Potential emissions (ton/yr)
PM_{10}	0.00	0.00
$PM_{2.5}$	0.00	0.00
SO_2	0.00	0.00
NO_X	0.03	0.12
VOC	0.00	0.01
CO	0.01	0.05
Largest HAP (n-Hexane)	5.29E-04	2.32E-03

Heaters I-H1 through I-H3 and I-H5 through I-H9 can be classified as insignificant sources of emissions in accordance with 15 NCAC 02Q .0503(8), since the estimated emissions from each do not exceed five tons per year for any criteria pollutant, or 1000 pounds per year for any HAP. Given the emissions from a 300,000 Btu/hr heater are so small, it is highly unlikely that a 400,000 Btu/yr heater (I-H4) would exceed the limits of an insignificant source of emissions. Therefore, Heater I-H4 can reasonably be assumed to be an insignificant source under 15 NCAC 02Q .0503(8). As insignificant activities, these sources should have no significant impact on overall emissions at the Transcontinental facility.

D. Removal of the wastewater evaporation system (Source ID No. I-WWES) from the permit.

The Transcontinental permit had authorized the wastewater evaporation system, but this system has never been installed at the facility. Transcontinental has requested the removal of this source from the permit. This change does not impact on emissions at the facility. (Note: This source was not listed in the TVEE at the time of renewal, so it is not included in Section 5 of this review under changes made to the TVEE).

E. Baghouse at the polyethylene pellet offloading system

The WSRO inspector has observed that the Transcontinental plastic pellet offloading system includes a baghouse which is not addressed in the current permit. Upon request, Transcontinental submitted information about the system and baghouse, making the argument that the baghouse should not be considered a control device.

Upon review of the information provided by Transcontinental, the purpose of the baghouse is to keep loose polyethylene plastic material (referred to as "angel hair") from clogging the polyethylene pellet offloading system. The entire offloading system from the railcar to the polyethylene storage silos (ID Nos. IES-S1 through S8) is closed to the atmosphere. As such, the baghouse functions as an integral part of the pellet offloading system, rather than a pollution control device. Nothing is emitted from the offloading system.

The function of the baghouse is consistent with criteria provided by EPA for distinguishing air pollution control equipment from process equipment: the primary purpose of the equipment, cost savings from product recovery versus equipment cost, and the need for the equipment in the absence of air quality regulations. [1] The baghouse on the pellet offloading system is used to maintain the operation of the

[1] Letter from D. Solomon, U.S. EPA, to T. Mohin, Intel Government Affairs, "Criteria for Determining Whether Equipment is Air Pollution Control Equipment or Process Equipment", November 27, 1995.

system, and would be part of the system even if air pollution were not a consideration. Based on this criteria, this baghouse would not be an air pollution control device.

6. Regulatory Review

Transcontinental is subject to the following regulations, in addition to the requirements in the General Conditions:

- 15A NCAC 2D .0515 "Particulates from Miscellaneous Industrial Processes"
- 15A NCAC 2D .0516 "Sulfur Dioxide from Combustion Sources"
- 15A NCAC 2D .0521 "Control of Visible Emissions"
- 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (40 CFR Part 63, Subpart KK)
- 15A NCAC 2D .1806 "Control and Prohibition of Odorous Emissions"
- 15A NCAC 2Q .0317 "Avoidance Conditions" (PSD Avoidance)

This document does not provide an extensive review for each applicable regulation, because the facility's status with respect to these regulations has not changed. The permit has been updated to reflect the most current stipulations for all applicable regulations. All regulations pertaining to TAP emission requirements have been removed. See Section 11 for details.

7. NESHAPS/MACT/GACT

The facility is subject to 40 CFR Part 63, Subpart KK, "National Emission Standards for the Printing and Publishing Industry." To be considered an area source, Transcontinental has agreed to use less than 10 tons per each rolling 12-month period of each hazardous air pollutant (HAP) at the facility and use less than 25 tons per each rolling 12-month period of a combination of all HAPs at the facility, including materials used for source categories or purposes other than printing and publishing. This permit renewal does not affect this status. Continued compliance is expected.

8. New Source Performance Standards (NSPS)

Transcontinental is not subject to any NSPS. This permit renewal does not affect this status.

9. New Source Review (NSR)/Prevention of Significant Deterioration (PSD)

Davidson County has triggered increment tracking under PSD for particulate matter and nitrogen oxide. The Transcontinental facility has accepted PSD avoidance conditions for VOCs. The following sources have VOC emission limits:

- One plastic bag forming machine with printing press **(ID No. F160)** shall discharge into the atmosphere less than 249 tons of volatile organic compounds (VOCs) combined per consecutive 12-month period.
- Two flexographic printing press stations **(ID Nos. PS1 and PS2 (ID Nos. PS1 and PS2)** shall discharge into the atmosphere less than 68.5 tons of VOCs combined per consecutive 12-month period.

This permit renewal does affect this status. Continued compliance is expected.

10. Risk Management Program (Clean Air Act, Section 112(r))

40 CFR Part 68 establishes requirements for stationary sources that hold more than threshold quantities of regulated substances to develop a risk management plan (RMP), in accordance with Section 112(r) of the Clean Air Act. The RMP identifies the potential effects of a chemical accident, steps the facility is taking to prevent an accident, and emergency response procedures if an accident occurs.

The Transcontinental facility does not appear to store any materials subject to 112(r) above their respective thresholds. This permit renewal does not affect this status. Continued compliance is expected.

10. Compliance Assured Monitoring (CAM)

40 CFR Part 64 establishes requirements for compliance assurance monitoring (CAM). This rule applies to any pollutant specific unit that meets the following three conditions:

- the unit is subject to any non-exempt emission limitation or standard (e.g. pre-November 15, 1990, Section 111/112 standard) for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.
- the precontrol potential emission rate for the unit exceeds either 100 tons per year for criteria pollutants, 10 tons per year of a single HAP, or 25 tons per year of multiple HAPs.

CAM was determined in a preceding permit review (R. Braswell, March 2, 2015) to not be applicable because the Transcontinental facility does not have any control devices. This permit renewal does not affect that status with respect to compliance assurance monitoring (CAM)

11. Facility-wide Toxics Review

As discussed in a previous permit review (R. Braswell, March 2, 2015), the Transcontinental facility had been subject to emission limits for 02D .1100 ("Control of Toxic Air Pollutants") and 02Q .0711 ("Emission Rates Requiring a Permit"). Under State 2012-91, emission sources subject to Federal regulations (e.g. MACT) are exempt from North Carolina toxic air pollutant (TAP) emission requirements, provided such exemptions would not pose an unacceptable risk to human health. Since all permitted emission sources at the facility are subject to MACT (see Section 7 of this review), the TAP limits were removed from the permit. This permit renewal does not affect this status. Based on the most recent inspection, Transcontinental has been complying with MACT standards. Continued compliance will be determined during subsequent inspections.

12. Facility Emissions Review

The table in the header page of this review summarizes emissions for Transcontinental after application of required emission controls. The 2018 emissions inventory is summarized below.

Pollutant	SO2	NOX	VOC	CO	PM2.5	PM10	Total HAP	Largest HAP
2018 emissions, tons/year	**0.0**	**0.37**	**60.31**	**0.31**	**0.0**	**0.0**	**0.6305**	**0.564** [Glycol Ethers, Unlisted (Spec)]

While 2018 emissions are higher than those in the preceding year, they are less than the highest levels of emissions over the period shown (2013-2018). None of the changes to the Transcontinental permit should increase the facility's potential to emit. Continued compliance at the Transcontinental facility is expected.

13. Compliance Status

The facility was last inspected on February 7, 2019 by Dylan Wright of the Winston-Salem Regional Office. The company appeared to be in compliance with all applicable requirements at that time.

Since the last permit renewal on March 2, 2015, Transcontinental (then known as Coveris) was issued a Notice of Violation on August 8, 2016 for failure to complete monthly VOC work practice inspections in January and February of 2016 as required by their permit. No other violations or deficiencies have been identified at the facility since that time.

14. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above. Virginia is an affected state within 50 miles of the facility, and Forsyth County is an affected local program.

15. Other Regulatory Considerations

A P.E. seal was not required for Permit Application No. 2900116.19B.

A zoning consistency determination was not required for Permit Application No. 2900116.19B.

A permit fee was not required for Permit Application No. 2900116.19B.

16. Recommendations

DAQ has reviewed the permit application(s) for Transcontinental TVL LLC located in Thomasville, Davidson County, North Carolina to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 04444/T21.